

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/988,687

DATE: 01/17/2002
TIME: 12:41:03

OIPE

Input Set: I988687.RAW

This Raw Listing contains the General Information
Section and up to first 5 pages.

1 <110> APPLICANT: Tavtigian, Sean V.
2 Teng, David H.F.
3 Simard, Jacques
4 Rommens, Johanna M.
5 Myriad Genetics, Inc.
6 <120> TITLE OF INVENTION: Chromosome 17p-Linked Prostate Cancer Susceptibility
7 Gene and a Paralog and Orthologous Genes
8 <130> FILE REFERENCE: 2318-258
9 <140> CURRENT APPLICATION NUMBER: US/09/988,687
10 <141> CURRENT FILING DATE: 2001-11-20
11 <150> EARLIER APPLICATION NUMBER: 09/564,805
12 <151> EARLIER FILING DATE: 2000-05-05
13 <150> EARLIER APPLICATION NUMBER: US 60/107,468
14 <151> EARLIER FILING DATE: 1998-11-06
15 <150> EARLIER APPLICATION NUMBER: 09/434,382
16 <151> EARLIER FILING DATE: 1999-11-05
17 <160> NUMBER OF SEQ ID NOS: 240
18 <170> SOFTWARE: PatentIn Ver. 2.0
19 <210> SEQ ID NO 1
20 <211> LENGTH: 2481
21 <212> TYPE: DNA
22 <213> ORGANISM: Homo sapiens
23 <220> FEATURE:
24 <221> NAME/KEY: CDS
25 <222> LOCATION: (1)..(2478)
26 <400> SEQUENCE: 1
27 atg tgg gcg ctt tgc tcg ctg ctg cgg tcc gcg gcc gga cgc acc atg 48
28 Met Trp Ala Leu Cys Ser Leu Leu Arg Ser Ala Ala Gly Arg Thr Met
29 1 5 10 15
30 tcg cag gga cgc acc ata tcg cag gca ccc gcc cgc cgc gag cgg ccg 96
31 Ser Gln Gly Arg Thr Ile Ser Gln Ala Pro Ala Arg Arg Glu Arg Pro
32 20 25 30
33 cgc aag gac ccg ctg cgg cac ctg cgc acg cga gag aag cgc gga ccg 144
34 Arg Lys Asp Pro Leu Arg His Leu Arg Thr Arg Glu Lys Arg Gly Pro
35 35 40 45
36 tcg ggg tgc tcc ggc ggc cca aac acc gtg tac ctg cag gtg gtg gca 192
37 Ser Gly Cys Ser Gly Gly Pro Asn Thr Val Tyr Leu Gln Val Val Ala
38 50 55 60
39 gcg ggt agc cgg gac tcg ggc gcc gcg ctc tac gtc ttc tcc gag ttc 240
40 Ala Gly Ser Arg Asp Ser Gly Ala Ala Leu Tyr Val Phe Ser Glu Phe
41 65 70 75 80
42 aac cgg tat ctc ttc aac tgt gga gaa ggc gtt cag aga ctc atg cag 288
43 Asn Arg Tyr Leu Phe Asn Cys Gly Glu Gly Val Gln Arg Leu Met Gln
44 85 90 95

ENTERED

PAGE: 2

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/988,687

DATE: 01/17/2002

TIME: 12:41:03

Input Set: I988687.RAW

45	gag cac aag tta aag gtt gct cgc ctg gac aac ata ttc ctg aca cga	336
46	Glu His Lys Leu Lys Val Ala Arg Leu Asp Asn Ile Phe Leu Thr Arg	
47	100 105 110	
48	atg cac tgg tct aat gtt ggg ggc tta agt gga atg att ctt act tta	384
49	Met His Trp Ser Asn Val Gly Gly Leu Ser Gly Met Ile Leu Thr Leu	
50	115 120 125	
51	aag gaa acc ggg ctt cca aag tgt gta ctt tct gga cct cca caa ctg	432
52	Lys Glu Thr Gly Leu Pro Lys Cys Val Leu Ser Gly Pro Pro Gln Leu	
53	130 135 140	
54	gaa aaa tac ctc gaa gca atc aaa ata ttt tct ggt cca ttg aaa gga	480
55	Glu Lys Tyr Leu Glu Ala Ile Lys Ile Phe Ser Gly Pro Leu Lys Gly	
56	145 150 155 160	
57	ata gaa ctg gct gtg cgg ccc cac tct gcc cca gaa tac gag gat gaa	528
58	Ile Glu Leu Ala Val Arg Pro His Ser Ala Pro Glu Tyr Glu Asp Glu	
59	165 170 175	
60	acc atg aca gtt tac cag atc ccc ata cac agt gaa cag agg agg gga	576
61	Thr Met Thr Val Tyr Gln Ile Pro Ile His Ser Glu Gln Arg Arg Gly	
62	180 185 190	
63	aag cac caa cca tgg cag agt cca gaa agg cct ctc agc agg ctc agt	624
64	Lys His Gln Pro Trp Gln Ser Pro Glu Arg Pro Leu Ser Arg Leu Ser	
65	195 200 205	
66	cca gag cga tct tca gac tcc gag tgc aat gaa aat gag cca cac ctt	672
67	Pro Glu Arg Ser Ser Asp Ser Glu Ser Asn Glu Asn Glu Pro His Leu	
68	210 215 220	
69	cca cat ggt gtt agc cag aga aga ggg gtc agg gac tct tcc ctg gtc	720
70	Pro His Gly Val Ser Gln Arg Arg Gly Val Arg Asp Ser Ser Leu Val	
71	225 230 235 240	
72	gta gct ttc atc tgt aag ctt cac tta aag aga gga aac ttc ttg gtg	768
73	Val Ala Phe Ile Cys Lys Leu His Leu Lys Arg Gly Asn Phe Leu Val	
74	245 250 255	
75	ctc aaa gca aag gag atg ggc ctc cca gtt ggg aca gct gcc atc gct	816
76	Leu Lys Ala Lys Glu Met Gly Leu Pro Val Gly Thr Ala Ala Ile Ala	
77	260 265 270	
78	ccc atc att gct gct gtc aag gac ggg aaa agc atc act cat gaa gga	864
79	Pro Ile Ile Ala Ala Val Lys Asp Gly Lys Ser Ile Thr His Glu Gly	
80	275 280 285	
81	aga gag att ttg gct gaa gag ctg tgt act cct cca gat cct ggt gct	912
82	Arg Glu Ile Leu Ala Glu Glu Leu Cys Thr Pro Pro Asp Pro Gly Ala	
83	290 295 300	
84	gct ttt gtg gtg gta gaa tgt cca gat gaa agc ttc att caa ccc atc	960
85	Ala Phe Val Val Val Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile	
86	305 310 315 320	
87	tgt gag aat gcc acc ttt cag agg tac caa gga aag gca gat gcc ccc	1008
88	Cys Glu Asn Ala Thr Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro	
89	325 330 335	
90	gtg gcc ttg gtg gtt cac atg gcc cca gca tct gtg ctt gtg gac agc	1056
91	Val Ala Leu Val Val His Met Ala Pro Ala Ser Val Leu Val Asp Ser	
92	340 345 350	
93	agg tac cag cag tgg atg gag agg ttt ggg cct gac acc cag cac ttg	1104
94	Arg Tyr Gln Gln Trp Met Glu Arg Phe Gly Pro Asp Thr Gln His Leu	

PAGE: 3

RAW SEQUENCE LISTING
 PATENT APPLICATION US/09/988,687

DATE: 01/17/2002

TIME: 12:41:03

Input Set: I988687.RAW

95		355		360		365		
96	gtc	ctg	aat	gag	aac	tgt	gcc	tca gtt cac aac ctt cgc agc cac aag 1152
97	Val	Leu	Asn	Glu	Asn	Cys	Ala	Ser Val His Asn Leu Arg Ser His Lys
98		370		375		380		
99	att	caa	acc	cag	ctc	aac	ctc	atc cac ccg gac atc ttc ccc ctg ctc 1200
100	Ile	Gln	Thr	Gln	Leu	Asn	Leu	Ile His Pro Asp Ile Phe Pro Leu Leu
101		385		390		395		400
102	acc	agt	ttc	cgc	tgt	aag	aag	gag ggc ccc acc ctc agt gtg ccc atg 1248
103	Thr	Ser	Phe	Arg	Cys	Lys	Lys	Glu Gly Pro Thr Leu Ser Val Pro Met
104			405			410		415
105	gtt	cag	ggt	gaa	tgc	ctc	ctc	aag tac cag ctc cgt ccc agg agg gag 1296
106	Val	Gln	Gly	Glu	Cys	Leu	Leu	Lys Tyr Gln Leu Arg Pro Arg Arg Glu
107			420			425		430
108	tgg	cag	agg	gat	gcc	att	att	act tgc aat cct gag gaa ttc ata gtt 1344
109	Trp	Gln	Arg	Asp	Ala	Ile	Ile	Thr Cys Asn Pro Glu Glu Phe Ile Val
110			435			440		445
111	gag	gcg	ctg	cag	ctt	ccc	aac	ttc cag cag agc gtg cag gag tac agg 1392
112	Glu	Ala	Leu	Gln	Leu	Pro	Asn	Phe Gln Gln Ser Val Gln Glu Tyr Arg
113			450			455		460
114	agg	agt	gcg	cag	gac	ggc	cca	gcc cca gca gag aaa aga agt cag tac 1440
115	Arg	Ser	Ala	Gln	Asp	Gly	Pro	Ala Pro Ala Glu Lys Arg Ser Gln Tyr
116			465			470		475
117	cca	gaa	atc	atc	ttc	ctt	gga	aca ggg tct gcc atc ccg atg aag att 1488
118	Pro	Glu	Ile	Ile	Phe	Leu	Gly	Thr Gly Ser Ala Ile Pro Met Lys Ile
119			485			490		495
120	cga	aat	gtc	agt	gcc	aca	ctt	gtc aac ata agc ccc gac acg tct ctg 1536
121	Arg	Asn	Val	Ser	Ala	Thr	Leu	Val Asn Ile Ser Pro Asp Thr Ser Leu
122			500			505		510
123	cta	ctg	gac	tgt	ggt	gag	ggc	aca ttt ggg cag ctg tgc cgt cat tac 1584
124	Leu	Leu	Asp	Cys	Gly	Glu	Gly	Thr Phe Gly Gln Leu Cys Arg His Tyr
125			515			520		525
126	gga	gac	cag	gtg	gac	agg	gtc	ctg ggc acc ctg gct gct gtg ttt gtg 1632
127	Gly	Asp	Gln	Val	Asp	Arg	Val	Leu Gly Thr Leu Ala Ala Val Phe Val
128			530			535		540
129	tcc	cac	ctg	cac	gca	gat	cac	cac acg ggc ttg cca agt atc ttg ctg 1680
130	Ser	His	Leu	His	Ala	Asp	His	His Thr Gly Leu Pro Ser Ile Leu Leu
131			545			550		555
132	cag	aga	gaa	cgc	gcc	ttg	gca	tct ttg gga aag ccg ctt cac cct ttg 1728
133	Gln	Arg	Glu	Arg	Ala	Leu	Ala	Ser Leu Gly Lys Pro Leu His Pro Leu
134			565			570		575
135	ctg	gtg	gtt	gcc	ccc	aac	cag	ctc aaa gcc tgg ctc cag cag tac cac 1776
136	Leu	Val	Val	Ala	Pro	Asn	Gln	Leu Lys Ala Trp Leu Gln Gln Tyr His
137			580			585		590
138	aac	cag	tgc	cag	gag	gtc	ctg	cac cac atc agt atg att cct gcc aaa 1824
139	Asn	Gln	Cys	Gln	Glu	Val	Leu	His His Ile Ser Met Ile Pro Ala Lys
140			595			600		605
141	tgc	ctt	cag	gaa	ggg	gct	gag	atc tcc agt cct gca gtg gaa aga ttg 1872
142	Cys	Leu	Gln	Glu	Gly	Ala	Glu	Ile Ser Ser Pro Ala Val Glu Arg Leu
143			610			615		620
144	atc	agt	tcg	ctg	ttg	cga	aca	tgt gat ttg gaa gag ttt cag acc tgt 1920

PAGE: 4

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/988,687

DATE: 01/17/2002
TIME: 12:41:03

Input Set: I988687.RAW

```

145      Ile Ser Ser Leu Leu Arg Thr Cys Asp Leu Glu Glu Phe Gln Thr Cys
146      625                      630                      635                      640
147      ctg gtg cgg cac tgc aag cat gcg ttt ggc tgt gcg ctg gtg cac acc      1968
148      Leu Val Arg His Cys Lys His Ala Phe Gly Cys Ala Leu Val His Thr
149                      645                      650                      655
150      tct ggc tgg aaa gtg gtc tat tcc ggg gac acc atg ccc tgc gag gct      2016
151      Ser Gly Trp Lys Val Val Tyr Ser Gly Asp Thr Met Pro Cys Glu Ala
152                      660                      665                      670
153      ctg gtc cgg atg ggg aaa gat gcc acc ctc ctg ata cat gaa gcc acc      2064
154      Leu Val Arg Met Gly Lys Asp Ala Thr Leu Leu Ile His Glu Ala Thr
155                      675                      680                      685
156      ctg gaa gat ggt ttg gaa gag gaa gca gtg gaa aag aca cac agc aca      2112
157      Leu Glu Asp Gly Leu Glu Glu Glu Ala Val Glu Lys Thr His Ser Thr
158      690                      695                      700
159      acg tcc caa gcc atc agc gtg ggg atg cgg atg aac gcg gag ttc att      2160
160      Thr Ser Gln Ala Ile Ser Val Gly Met Arg Met Asn Ala Glu Phe Ile
161      705                      710                      715                      720
162      atg ctg aac cac ttc agc cag cgc tat gcc aag gtc ccc ctc ttc agc      2208
163      Met Leu Asn His Phe Ser Gln Arg Tyr Ala Lys Val Pro Leu Phe Ser
164                      725                      730                      735
165      ccc aac ttc agc gag aaa gtg gga gtt gcc ttt gac cac atg aag gtc      2256
166      Pro Asn Phe Ser Glu Lys Val Gly Val Ala Phe Asp His Met Lys Val
167                      740                      745                      750
168      tgc ttt gga gac ttt cca aca atg ccc aag ctg att ccc cca ctg aaa      2304
169      Cys Phe Gly Asp Phe Pro Thr Met Pro Lys Leu Ile Pro Pro Leu Lys
170                      755                      760                      765
171      gcc ctg ttt gct ggc gac atc gag gag atg gag gag cgc agg gag aag      2352
172      Ala Leu Phe Ala Gly Asp Ile Glu Glu Met Glu Glu Arg Arg Glu Lys
173      770                      775                      780
174      cgg gag ctg cgg cag gtg cgg gcg gcc ctc ctg tcc agg gag ctg gca      2400
175      Arg Glu Leu Arg Gln Val Arg Ala Ala Leu Leu Ser Arg Glu Leu Ala
176      785                      790                      795                      800
177      ggc ggc ctg gag gat ggg gag cct cag cag aag cgg gcc cac aca gag      2448
178      Gly Gly Leu Glu Asp Gly Glu Pro Gln Gln Lys Arg Ala His Thr Glu
179                      805                      810                      815
180      gag cca cag gcc aag aag gtc aga gcc cag tga      2481
181      Glu Pro Gln Ala Lys Lys Val Arg Ala Gln
182                      820                      825
183      <210> SEQ ID NO 2
184      <211> LENGTH: 826
185      <212> TYPE: PRT
186      <213> ORGANISM: Homo sapiens
187      <400> SEQUENCE: 2
188      Met Trp Ala Leu Cys Ser Leu Leu Arg Ser Ala Ala Gly Arg Thr Met
189      1                      5                      10                      15
190      Ser Gln Gly Arg Thr Ile Ser Gln Ala Pro Ala Arg Arg Glu Arg Pro
191                      20                      25                      30
192      Arg Lys Asp Pro Leu Arg His Leu Arg Thr Arg Glu Lys Arg Gly Pro
193      35                      40                      45
194      Ser Gly Cys Ser Gly Gly Pro Asn Thr Val Tyr Leu Gln Val Val Ala

```

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/988,687

DATE: 01/17/2002
TIME: 12:41:03

Input Set: I988687.RAW

195	50	55	60
196	Ala Gly Ser Arg Asp Ser Gly Ala Ala Leu Tyr Val Phe Ser Glu Phe		
197	65	70	75
198	Asn Arg Tyr Leu Phe Asn Cys Gly Glu Gly Val Gln Arg Leu Met Gln		80
199		85	90
200	Glu His Lys Leu Lys Val Ala Arg Leu Asp Asn Ile Phe Leu Thr Arg		95
201		100	105
202	Met His Trp Ser Asn Val Gly Gly Leu Ser Gly Met Ile Leu Thr Leu		110
203		115	120
204	Lys Glu Thr Gly Leu Pro Lys Cys Val Leu Ser Gly Pro Pro Gln Leu		125
205		130	135
206	Glu Lys Tyr Leu Glu Ala Ile Lys Ile Phe Ser Gly Pro Leu Lys Gly		140
207	145	150	155
208	Ile Glu Leu Ala Val Arg Pro His Ser Ala Pro Glu Tyr Glu Asp Glu		160
209		165	170
210	Thr Met Thr Val Tyr Gln Ile Pro Ile His Ser Glu Gln Arg Arg Gly		175
211		180	185
212	Lys His Gln Pro Trp Gln Ser Pro Glu Arg Pro Leu Ser Arg Leu Ser		190
213		195	200
214	Pro Glu Arg Ser Ser Asp Ser Glu Ser Asn Glu Asn Glu Pro His Leu		205
215		210	215
216	Pro His Gly Val Ser Gln Arg Arg Gly Val Arg Asp Ser Ser Leu Val		220
217	225	230	235
218	Val Ala Phe Ile Cys Lys Leu His Leu Lys Arg Gly Asn Phe Leu Val		240
219		245	250
220	Leu Lys Ala Lys Glu Met Gly Leu Pro Val Gly Thr Ala Ala Ile Ala		255
221		260	265
222	Pro Ile Ile Ala Ala Val Lys Asp Gly Lys Ser Ile Thr His Glu Gly		270
223		275	280
224	Arg Glu Ile Leu Ala Glu Glu Leu Cys Thr Pro Pro Asp Pro Gly Ala		285
225		290	295
226	Ala Phe Val Val Val Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile		300
227	305	310	315
228	Cys Glu Asn Ala Thr Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro		320
229		325	330
230	Val Ala Leu Val Val His Met Ala Pro Ala Ser Val Leu Val Asp Ser		335
231		340	345
232	Arg Tyr Gln Gln Trp Met Glu Arg Phe Gly Pro Asp Thr Gln His Leu		350
233		355	360
234	Val Leu Asn Glu Asn Cys Ala Ser Val His Asn Leu Arg Ser His Lys		365
235		370	375
236	Ile Gln Thr Gln Leu Asn Leu Ile His Pro Asp Ile Phe Pro Leu Leu		380
237	385	390	395
238	Thr Ser Phe Arg Cys Lys Lys Glu Gly Pro Thr Leu Ser Val Pro Met		400
239		405	410
240	Val Gln Gly Glu Cys Leu Leu Lys Tyr Gln Leu Arg Pro Arg Arg Glu		415
241		420	425
242	Trp Gln Arg Asp Ala Ile Ile Thr Cys Asn Pro Glu Glu Phe Ile Val		430
243		435	440
244	Glu Ala Leu Gln Leu Pro Asn Phe Gln Gln Ser Val Gln Glu Tyr Arg		445

Input Set: I988687.RAW

Line	?	Error/Warning	Original Text
881	W	"N" or "Xaa" used: Feature required	agcatcactc atgaaggaag agaggtgaga tgcctggt
1113	W	"N" or "Xaa" used: Feature required	caggaattca gcacatactc attgttcagn n
1335	W	"N" or "Xaa" used: Feature required	caggaattca gcacatactc attgttcagn n
2308	W	"N" or "Xaa" used: Feature required	Xaa Xaa Xaa Xaa His Xaa His Xaa Asp His X
2319	W	"N" or "Xaa" used: Feature required	tttaatacga ctactatag ggaatttggc cctcgagn
2443	W	"N" or "Xaa" used: Feature required	tttaatacga ctactatag ggaatttggc cctcgagn
2703	W	"N" or "Xaa" used: Feature required	gaa gcc act ctg gag gat cnc ttg gaa gag g
2709	W	"N" or "Xaa" used: Feature required	gag ttc atc atg ctg aac cac ttc agt cag c
2715	W	"N" or "Xaa" used: Feature required	atg aag gtc tgn ttt gga gac ttc ccg aca g
2822	W	"N" or "Xaa" used: Feature required	Glu Ala Thr Leu Glu Asp Xaa Leu Glu Glu G
2826	W	"N" or "Xaa" used: Feature required	Glu Phe Ile Met Leu Asn His Phe Ser Gln A
2830	W	"N" or "Xaa" used: Feature required	Met Lys Val Xaa Phe Gly Asp Phe Pro Thr V